

Perspectives in Veterinary Medicine

Veterinary Diagnostic Laboratories in the United States

By Dr. Donald F. Smith

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Several years ago, Dr. Douglas Aspros, who is now the president of the AVMA, wrote that, “When we support a vigorous and proactive public-health community, we all share the dividends. There are few areas of government spending where the return on our investment is so immediate, highly leveraged, and well-established. If we, as public health stewards, are doing our jobs right, we implement programs and save people’s lives before they know them to be in jeopardy.”¹

About the same time, Dr. Bob Marshak² told me that Cornell was very fortunate to have a full-service and high-quality animal health diagnostic laboratory on its veterinary campus. As dean, I realized how critical the laboratory was to our outreach and research missions. At that time, however, I did not have the same level of appreciation that the 175 diagnosticians, scientists and technical and support staff contribute to our veterinary educational infrastructure as much as I realize now.



Animal Health Diagnostic Center, Cornell University, 2010
(Photo by the author)

Though all states have capacity for animal health diagnostic laboratory services, only about half of them are connected to a university, typically land-grant universities where they are part of the respective veterinary college.³

Diagnostic laboratories that are separate from universities focus on the singular mission of diagnostics. As critical as that is for surveillance and public service, diagnostic laboratories within university settings have the added mandates of research and teaching. This expansion of mission, as well as the richness provided by the academic environment, enhances opportunities for recruitment and retention of faculty and staff.



Dr. Bruce L. Akey, Assistant Dean and Executive Director
Animal Health Diagnostic Center, Cornell University, circa 2008
(©Cornell University)

How the connection of these laboratories to the teaching mission is expressed differs among veterinary colleges, but at the core of each is the undeniable benefit that Dr. Bruce Akey, executive director of the Animal Health Diagnostic Center at Cornell, explains this way.

“The accrued benefit to teaching emanates from the rich, real-time, real-world sources of specimens for both large and small domestic animals and wildlife that arrive daily at the laboratory. This includes student access to the various diagnostic services, including anatomic pathology (that is, necropsy services) at both the gross and microscopic levels.”⁴

None of this is to say that some of the newer private colleges outside the land-grant diagnostic system, such as California’s Western University of the Health Sciences or Arizona’s nascent Midwestern University in Glendale, cannot provide access to good educational material. But for these colleges, it does represent an additional component that must be factored into the

students' programs, often through direct outsourcing or alternatively through creative forms of distance or off-site experiential learning.

The cost of establishing and maintaining full service diagnostic laboratory capabilities is not trivial and is potentially subject to the fiscal challenges of state and federal officials (elected and permanent), who must balance the need for surveillance capacity during quiet times, when there are no obvious emergent conditions that threaten animal or human health, with concerns more visible to their constituents.

During an epizootic situation, as was present in the State of Michigan in the 1990s when tuberculosis had been diagnosed in 300 white-tailed deer and over a dozen cows, it is somewhat easier to justify a \$58 million dollar investment in a new Diagnostic Laboratory.⁵ The word-on-the-street among veterinary college administrators at the time commiserated the unfortunate realization that it took a serious public health hazard, loss of TB-free status, and the potential loss of revenue from sports enthusiasts⁶ to convince the state legislature to invest in a much-needed diagnostic laboratory.

This runs counter to the Aspros principle noted at the beginning of this article and speaks to the need for veterinary medicine to come together to assert the strongest political voice possible so crises of this nature do not become the default for effecting wise allocation of state resources.

¹ Aspros Douglas, DVM, President of the American Veterinary Medical Association, 2012-13. In, "Safeguarding our Ecosystem," a chapter in "Beyond Traditional Boundaries: Veterinary Medicine at Cornell in the Twenty-First Century," Cornell University, 2000.

² Marshak, Robert, DVM, Dean Emeritus, University of Pennsylvania School of Veterinary Medicine.

³ Akey, Bruce L, DVM, MS, Assistant Dean and Executive Director, Animal Health Diagnostic Center, Cornell University. Interview with Donald F. Smith (Cornell University), 2013 June 20.

⁴ *Ibid.*

⁵ [MSU Board Oks Plan to Build State Diagnostic Lab on Campus](#). MSU Today. June 23, 2000.

⁶ The multi-million dollar deer hunting industry was threatened by the emergence of tuberculosis in the deer population.

KEYWORDS:

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TOPIC:

Veterinary Colleges in the United States

ABOUT THE AUTHOR:

Dr. Donald F. Smith, Dean Emeritus of the Cornell University College of Veterinary Medicine, had a passion for the value of the history of veterinary medicine as a gateway for understanding the present and the future of the profession.

Throughout his many professional roles from professor of surgery, to Department Chair of Clinical Sciences, Associate Dean of Education and of Academic Programs and Dean, he spearheaded changes in curriculum, clinical services, diagnostic services and more. He was a diplomat of the American College of Veterinary Surgeons and a member of the National Academy of Practices. Most recently he played a major role in increasing the role of women in veterinary leadership.

Perspectives in Veterinary Medicine is one of his projects where he was able to share his vast knowledge of the profession.